

ABSTRACT OF THE DISCLOSURE

Apparatus and methods for fitting mechanical parts to minimize prevent free play are described. Additionally, a design for an apparatus having a piston, which restrains the piston before actuation and which allows the piston to gain momentum before striking an object, is detailed. The described apparatus are applicable to devices involving shearable elements. An embodiment of the invention as a pyrotechnically activated valve incorporating such features to minimize free play in conjunction with such features to restrain the piston and also allow the piston to gain momentum is described.